

ABSTRACT

An isolated, water-soluble polypeptide derived from tryptophanyl-tRNA synthetase is useful for the inhibition of angiogenesis. The polypeptide consists essentially of the amino acid residue sequence

5 SAKGIDYDKL IVRFGSSKID KELINRIERA TGQRPHHFLR RGIFFSHRDM
NQVLDAYENK KPFYLYTGRG PSSEAMHVGH LIPFIFTKWL QDVFNVPLVI
QMTDDEKYLW KDLTLDQAYG DAVENAKDII ACGFDINKTF IFSDL DYMG
SSGFYKNVVK IQKHVTFNQV KGIFGFTDSD CIGKISFPAI QAAPSFSNSF
PQIFRDRTDI QCLIPCAIDQ DPYFRMTRDV APRIGYPKPA LLHSTFFPAL
10 QGAQTKMSAS DPNSSIFLTD TAKQIKTKVN KHAFSGGRDT IEEHRQFGGN
CDVDVSFMYL TFFLEDDDKL EQIRKDYTSG AMLTGELKKA LIEVLQPLIA
EHQARRKEVT DEIVKEFMTP RKLSFDFQ (SEQ ID NO: 12)

or an angiogenesis inhibiting fragment thereof. The isolated polypeptide has a size of no more than about 45 kilodaltons. Methods of use of the polypeptide are
15 also provided.